

PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE INSTALLATION OF A NEW TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF OPPOSUMTOWN PIKE AND S.B.US 15 OFF RAMP AND AN INTERCONNECT SYSTEM FOR OPOSSUMTOWN PIKE FROM THOMAS JOHNSON DRIVE TO PINWOOD DRIVE IN FREDERICK COUNTY.OPOSUMTOWN PIKE IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA FOUR-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH A LAG LEFT EXCLUSIVE-PERMISSIVE LEFT TURN PHASE FOR NORTHBOUND OPPOSUMTOWN PIKE.

CONTROLLER REQUIREMENTS

THE CITY OF FREDERICK WILL INSTALL A FULL-TRAFFIC-ACTUATED EIGHT-PHASE EAGLE (EPAC 300) CONTROLLER WITH SYSTEM PACKAGE,TWO (2), FOUR-CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIERS HOUSED IN A BASE MOUNTED CABINET.

THIS SIGNAL WILL BE MAINTAINED BY THE CITY OF FREDERICK.

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE FURNISHED BY MSHA AND INSTALLED BY THE CONTRACTOR.

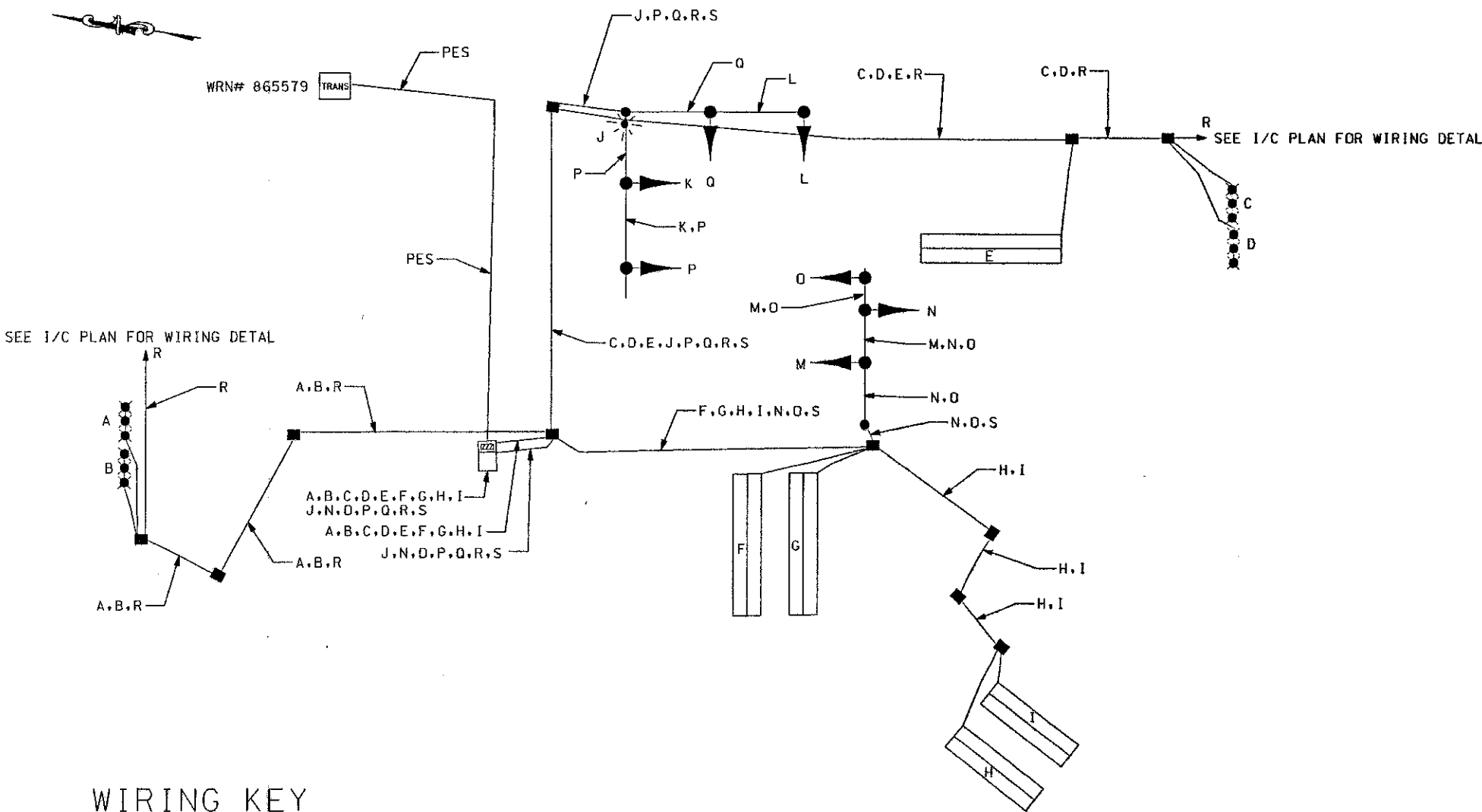
ITEM NO.	QUANTITY	DESCRIPTION
9000	1 EA	(UPDATED) CABINET WTELEMETRY (SYSTEM CAB), SIZE 6
9016	3 EA	4-CHANNEL, TIME-DELAY-OUTPUT, LOOP DETECTOR AMPLIFIER
9570	78 SF	(UPDATED) SHEET ALUMINUM FOR GROUND MOUNTED SIGNS
		3 EACH - W3-3 SIGN (48" X 48")
		3 EACH - "NEW" PANEL (30" X 30")
		1 EACH - M3-3 (12" X 24")
		1 EACH - M1-4 (24" X 24")
		1 EACH - M5-1 (21" X 15")
9571	58 SF	(UPDATED) SHEET ALUMINUM FOR MAST ARM MOUNTED SIGNS
		1 EACH - D3-1 DUAL FACE SIGN (VAR.X 32") "OPOSSUMTOWN PK / MOTTER AVE"
		1 EACH - R10-12 SIGN (36" X 42")
		1 EACH - M95-1 (MOD) SIGN (50" X 24")
		2 EACH - R3-5L SIGN (30" X 36")

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR

ITEM NO.	QUANTITY	DESCRIPTION
8090	1 EA	INSTALL BASE MOUNTED CONTROLLER AND CABINET
NEG	1 EA	FURNISH AND INSTALL 30 FT. GALVANIZED STEEL SQUARE POLE WITH TWIN 38 FT./38 FT. SQUARE MAST ARMS. POLE AND MAST ARMS TO BE PAINTED WITH VALMONT SPECIFICATION F-283-E BRONZE TONE NO. 347599 OR APPROVED EQUAL SEE DETAILS E21-E21L FROM CITY OF FREDERICK "STANDARD DESIGN AND CONSTRUCTION DETAILS" APRIL 1985 (REV. 200).
NEG	1 EA	FURNISH AND INSTALL 30 FT. GALVANIZED STEEL SQUARE POLE WITH 38 FT. SQUARE MAST ARM. POLE AND MAST ARM TO BE PAINTED WITH VALMONT SPECIFICATION F-283-E BRONZE TONE NO. 347599 OR APPROVED EQUAL SEE DETAILS E21-E21L FROM CITY OF FREDERICK "STANDARD DESIGN AND CONSTRUCTION DETAILS" APRIL 1985 (REV. 200).
NEG	1 EA	FURNISH AND INSTALL 250 WATT HPS LAMP AND LUMINAIRE, RECTANGULAR, TO BE PAINTED WITH VALMONT SPECIFICATION F-283-E BRONZE TONE NO. 347599 OR APPROVED EQUAL SEE DETAILS E21-E21L FROM CITY OF FREDERICK "STANDARD DESIGN AND CONSTRUCTION DETAILS" APRIL 1985 (REV. 200).

WIRING DIAGRAM



WIRING KEY

A-D	MICRO-LOOP PROBE	R	12-PAIR COMMUNICATION CABLE JELLYFILLED UNDERGROUND SEE INTERCONNECT PLAN FOR WIRING DETAIL
E-I	2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.) ALUMINUM SHIELDED	S	STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
J	2 CONDUCTOR ELECTRICAL CABLE (NO. 12 A.W.G.)	LW	LOOP WIRE (NO. 14 A.W.G.)
K-M	5 CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)	ML	MICRO-LOOP PROBE
N-Q	7 CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)	X	GROUND ROD
		PES	PROPOSED ELECTRICAL SERVICE

CONTACT PERSONS FOR DISTRICT 7 ARE AS FOLLOWS:

MR. JOHN CONCANNON
ASSISTANT DISTRICT ENGINEER - TRAFFIC
(301) 624-8141

MR. DAVE COYNE
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
(301) 624-8106

MR. JIM BUCKALEW
ASSISTANT DISTRICT ENGINEER - UTILITIES
(301) 624-8110

CONTACTS FOR OFFICE OF TRAFFIC AND SAFETY

MR. RICHARD DAFF, SR.
CHIEF, TRAFFIC OPERATIONS
(410) 787-7630

MR. EUGENE BAILEY
TEAM LEADER SIGN OPERATIONS
(410) 787-7676

MR. ROBERT SNYDER
ASSISTANT DIVISION CHIEF,
TRAFFIC OPERATIONS
(410) 787-7631

MS. DARLENE EIDE
SUPPLY OFFICER
SIGNAL SHOP WAREHOUSE
(410) 787-7668

MR. ED RODENHIZER
TEAM LEADER SIGNAL OPERATIONS
(410) 787-7652

CONTACT PERSON FOR ALLEGANY POWER IS AS FOLLOWS:

MR. DAN KEISTER
(301) 694-4414
WRN # 865579

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR

ITEM NO.	QUANTITY	DESCRIPTION
1001	3 EA	MAINTENANCE OF TRAFFIC
2002	3 CY	TEST PIT EXCAVATION
5001	30 LF	REMOVAL OF EXISTING PAVEMENT LINE MARKING - ANY WIDTH
5003	150 LF	FURNISH AND INSTALL 5 IN. WHITE HEAT APPLIED PERMANENT THERMOPLASTIC PAVEMENT MARKING
5006	80 LF	FURNISH AND INSTALL 24 IN. WHITE HEAT APPLIED PERMANENT THERMOPLASTIC PAVEMENT MARKING
8001	10 CY	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
8021	120 LF	FURNISH AND INSTALL 4 IN. X 6 IN. WOOD SUPPORT
8022	210 LF	FURNISH AND INSTALL NO. 6 AWG STRANDED BARE COPPER WIRE
8029	930 LF	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT - BORED
8031	1400 LF	FURNISH AND INSTALL 3 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT - TRENCHED
8035	30 LF	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT - SLOTTED
8036	70 LF	FURNISH AND INSTALL 1 IN. LIQUID TIGHT, FLEXIBLE, NON-METALLIC CONDUIT FOR DETECTOR SLEEVE
8038	1 EA	FURNISH AND INSTALL ELECTRICAL UTILITY SERVICE EQUIPMENT 120 /240 VOLT, 60 AMPS
8039	50 LF	FURNISH AND INSTALL ELECTRICAL CABLE 1-CONDUCTOR NO.4 AWG
8041	4 EA	FURNISH AND INSTALL MICRO-LOOP PROBE SET WITH 500 FT. LEAD-IN
8045	23 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8047	78 SF	INSTALL GROUND MOUNTED SIGN
8048	58 SF	INSTALL OVERHEAD SIGN
8063	2800 LF	FURNISH AND INSTALL 12-PAIR COMMUNICATION CABLE JELLYFILLED UNDERGROUND
8069	3 EA	FURNISH AND INSTALL GROUND ROD * IN. DIAMETER X 10 FT. LENGTH
8070	3 EA	FURNISH AND INSTALL 8 IN. VEHICLE TRAFFIC SIGNAL HEAD SECTION
8071	22 EA	FURNISH AND INSTALL 12 IN. VEHICLE TRAFFIC SIGNAL HEAD SECTION
8076	1300 LF	FURNISH AND INSTALL ELECTRICAL CABLE 2-CONDUCTOR ALUMINUM SHIELDED
8079	70 LF	FURNISH AND INSTALL ELECTRICAL CABLE 5-CONDUCTOR NO.14 AWG
8080	690 LF	FURNISH AND INSTALL ELECTRICAL CABLE 7-CONDUCTOR NO.14 AWG
8081	160 LF	FURNISH AND INSTALL ELECTRICAL CABLE 2-CONDUCTOR NO.12 AWG
8082	2035 LF	FURNISH AND INSTALL LOOP WIRE ENCASED IN * IN. FLEXIBLE TUBING (NO.14 AWG)
8083	600 LF	FURNISH AND INSTALL SAW CUT FOR LOOP DETECTOR

EQUIPMENT LIST "C"

C. EXISTING EQUIPMENT TO BE REMOVED BY THE CONTRACTOR AND DELIVERED TO THE STATE HIGHWAY ADMINISTRATION, 7491 CONNELLEY DRIVE, HANOVER, MARYLAND 21076 THE CONTRACTOR SHALL NOTIFY THE SHA AT (410) 787-7652 AT LEAST THREE DAYS IN ADVANCE OF DELIVERY.

ITEM NO.	QUANTITY	DESCRIPTION
NEG	1 EA	FURNISH EAGLE (EPAC 300) BASE MOUNTED CONTROLLER

EQUIPMENT LIST "D"

D. EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CITY OF FREDERICK

ITEM NO.	QUANTITY	DESCRIPTION
NEG	1 EA	FURNISH EAGLE (EPAC 300) BASE MOUNTED CONTROLLER

PHASE CHART

	1	2	3	4	5	6	7
PHASE 2 & 6	G	G	G	G	R	R	
2 & 6 CHANGE	Y	Y	Y	Y	Y	R	R
PHASE 1 & 6	G	G	G	R	R	R	R
1 & 6 CHANGE	G	G	G	G	R	R	R
PHASE 4	R	R	R	R	R	G	G
4 CHANGE	R	R	R	R	R	Y	Y
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R



MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
GENERAL INFORMATION

OPOSSUMTOWN PIKE AND S.B.US 15 OFF RAMP

DRAWN BY: M.HOWELL	F.A.P. NO.	TS NO.
CHECKED BY: J.ZAYDEL	S.H.A. NO.	4254
SCALE: 1" = 20'	COUNTY: FREDERICK	T.I.M.S. NO. F713
DATE: 2-9-04	LOG MILE:	SHEET NO. 3 OF 3